

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ernest Beffel on 9/11/09.

The application has been amended as follows:

after "maintaining" (claim 48, line 3) insert -- , **utilizing a processor and memory, --;**

after "node" (claim 48, line 10) insert:

-- **wherein said machine-readable specifications are adapted to be parsed and include data that**

identifies an input document,

identifies one or more transactions that accept said input document, and

describes sets of storage units and logical structures for the sets of storage units in said input document --;

cancel claims 49 and 50;

replace "49" (claim 53, line 1) with -- **48** --;

after "maintaining" (claim 54, line 3) insert -- , **utilizing a processor and memory, --;**

after "the" (claim 54, line 13 (first instance)) insert -- **sets of** --;

Art Unit: 2454

after "instructions;" (claim 59, line 11) insert:

**-- wherein said machine-readable specifications are adapted to be
parsed and include data that**

identifies an input document,

**identifies one or more transactions that accept said input
document, and**

**describes sets of storage units and logical structures for the sets
of storage units in said input document; --;**

cancel claims 60, 61, and 64;

replace "64" (claim 68, line 1) with -- **65** --;

after "storage units;" (claim 70, line 8) insert:

**-- wherein said machine-readable specifications are adapted to be
parsed and include data that**

identifies an input document,

**identifies one or more transactions that accept said input
document, and**

**describes sets of storage units and logical structures for the sets
of storage units in said input document; --;**

replace "an" (claim 70, line 9) with -- **the** --.

cancel claims 71, 72, and 75;

cancel previously withdrawn claims 76 – 83, 90, and 91;

delete ", now U.S. Patent No. 6,125,391" (specification Amendment on 2/25/02;

p. 2, lines 4 – 5).

A clean copy of the **amended** claim language is provided below:

1-47. (Cancelled)

48. A method for establishing transactions among trading partners in a network, comprising:

maintaining, utilizing a processor and memory, a registry of machine-readable specifications specifying business services offered by trading partners, the machine-readable specifications including at least one of definitions of, and references to definitions of, services offered and at least one of definitions of, and references to definitions of, documents to be exchanged with such services by trading partners; and

providing, in response to a request, one or more of the machine-readable specifications from said registry via a communication network to a requesting node;

wherein said machine-readable specifications are adapted to be parsed and include data that

identifies an input document,

identifies one or more transactions that accept said input document,
and

describes sets of storage units and logical structures for the sets of storage units in said input document.

49-50. (Cancelled)

51. The method of claim 48, wherein the definitions of the documents to be exchanged comprise respective descriptions of sets of storage units and logical structures for the sets of storage units.

52. The method of claim 48, wherein the machine-readable specifications include

Art Unit: 2454

documents compliant with a definition of a predefined document including logical structures for storing an identifier of a particular transaction, and at least one of definitions and references to definitions of input and output documents for the particular transaction.

53. The method of claim 48, wherein the storage units comprise parsed data.

54. A method for establishing transactions among trading partners in a network, comprising:

maintaining, utilizing a processor and memory, a registry of machine-readable specifications specifying business services offered by trading partners, the machine-readable specifications including at least one of definitions of, and references to definitions of, services offered and at least one of definitions of, and references to definitions of, documents to be exchanged with such services by trading partners, wherein said machine-readable specifications comprise data identifying respective descriptions of sets of storage units and logical structures for the sets of storage units; and

providing, in response to a request, one or more of the machine-readable specifications from said registry via a communication network to a requesting node,

wherein the sets of storage units comprise parsed data, and wherein the parsed data in at least one of the documents to be exchanged comprises:

character data encoding text characters in the one of the input and output documents, and

markup data identifying sets of storage units according to the logical structure of the one of the input and output documents.

55. The method of claim 54, wherein at least one of the sets of storage units encodes a plurality of text characters providing a natural language word.

56. The method of claim 54, wherein the specification includes interpretation information

Art Unit: 2454

for at least one of the sets of storage units identified by the logical structure of at least one of the input and output documents, encoding respective definitions for sets of parsed characters.

57. The method of claim 53, wherein the storage units comprise unparsed data.

58. The method of claim 48, including associating trading partners with said machine readable specifications.

59. An apparatus used for establishing transactions among trading partners in a network, comprising:

- a network interface;

- memory storing data and programs of instructions, including a registry of machine-readable specifications specifying business services offered by trading partners, the machine-readable specifications including at least one of definitions of, and references to definitions of, services offered and at least one of definitions of, and references to definitions of, documents to be exchanged with such services by trading partners; and

- a data processor coupled to the memory and the network interface which executes programs of instructions;

- wherein said machine-readable specifications are adapted to be parsed and include data that

- identifies an input document,

- identifies one or more transactions that accept said input document,
 - and

- describes sets of storage units and logical structures for the sets of storage units in said input document;

- wherein the programs of instructions include logic to provide, in response to a request received at the network interface, one or more of the machine-

Art Unit: 2454

readable specifications from said registry via a communication network to a requesting node.

60-61. (Cancelled)

62. The apparatus of claim 59, wherein the definitions of the documents to be exchanged comprise respective descriptions of sets of storage units and logical structures for the sets of storage units.

63. The apparatus of claim 59, wherein the machine-readable specifications include documents compliant with a definition of a predefined document including logical structures for storing an identifier of a particular transaction, and at least one of definitions and references to definitions of input and output documents for the particular transaction.

64. (Cancelled)

65. An apparatus used for establishing transactions among trading partners in a network, comprising:

a network interface;

memory storing data and programs of instructions, including a registry of machine-readable specifications specifying business services offered by trading partners, the machine-readable specifications including at least one of definitions of, and references to definitions of, services offered and at least one of definitions of, and references to definitions of, documents to be exchanged with such services by trading partners, wherein the definitions of the documents to be exchanged comprise respective descriptions of sets of storage units and logical structures for the sets of storage units; and

a data processor coupled to the memory and the network interface which executes programs of instructions; wherein the programs of instructions include

logic to provide, in response to a request received at the network interface, one or more of the machine-readable specifications from said registry

via a communication network to a requesting node;

wherein the storage units comprise parsed data, and the parsed data in at least one of the documents to be exchanged comprises:

character data encoding text characters in the one of the input and output documents, and

markup data identifying sets of storage units according to the logical structure of the one of the input and output documents.

66. The apparatus of claim 65, wherein at least one of the sets of storage units encodes a plurality of text characters providing a natural language word.

67. The apparatus of claim 65, wherein the specification includes interpretation information for at least one of the sets of storage units identified by the logical structure of at least one of the input and output documents, encoding respective definitions for sets of parsed characters.

68. The apparatus of claim 65, wherein the storage units comprise unparsed data.

69. The apparatus of claim 59, wherein the programs of instructions include logic to associate identifiers of trading partners with said machine-readable specifications.

70. A method for executing transactions among nodes in a network, the network including a plurality of nodes which execute processes involved in the transactions, comprising:

publishing through a communication network a machine-readable specification of an interface to an operation, the specification including a definition of an input document and a definition of an output document, the definitions of the input and output documents comprising respective descriptions of sets of storage units and logical structures for the sets of storage units;

wherein said machine-readable specifications are adapted to be parsed and include data that

Art Unit: 2454

identifies an input document,

identifies one or more transactions that accept said input document,

and

describes sets of storage units and logical structures for the sets of storage units in said input document;

receiving data comprising the input document through the communication network;

parsing the data according to the specification to identify the input document;

providing at least a portion of the input document in a machine-readable format to a transaction process which produces an output;

forming an output document, based on the specification and according to the definition of the output document; and

transmitting the output document through the communication network.

71-72. (Cancelled)

73. The method of claim 70, wherein the definitions of the documents to be exchanged comprise respective descriptions of sets of storage units and logical structures for the sets of storage units.

74. The method of claim 70, wherein the machine-readable specifications include documents compliant with a definition of a predefined document including logical structures for storing an identifier of a particular transaction, and at least one of definitions and references to definitions of input and output documents for the particular transaction.

75 – 83. (Cancelled)

84. A method of executing operations requested by a consuming service running on a consuming server via a network, comprising

Art Unit: 2454

exposing to at least one consuming service via a network an operation interface running on a providing server, the operation interface providing access to an operation running on a processing server and,

wherein the operation interface implements an interface definition stored in an operation interface definition data structure on an interface storage means and the interface definition data structure includes definitions of input and output business documents, and the definitions include respective descriptions of sets of storage units and logical structures for the sets of storage units;

receiving at the providing server via the network an input business document from the consuming server;

parsing at the providing server the input business document according to the definition of the input business document to provide access to its content and logical structure and translating at least part of the parsed input business document into an internal input data object;

sending from the providing server to the operation running on the processing server the internal input data object; and

transmitting via the network an output business document that conforms to the definition of the output business document to the consuming server.

85. The method of claim 84, further including:

the providing server receiving back an internal output data object from the processing server; and

translating at the providing server the internal output data object into the output business document that is transmitted to the consuming server.

86. The method of claim 84, wherein the input and output business documents conform to a standard Extensible Markup Language XML format.

87. The method of claim 84, wherein the storage units comprise parsed data.

Art Unit: 2454

88. The method of claim 87, wherein the parsed data in at least one of the input and output business documents comprises:

character data encoding text characters in the one of the input and output business documents; and

markup data identifying sets of storage units according to the logical structure of the one of the input and output documents.

89. A method of causing operations to be executed responsive to a request from a consuming service running on a consuming server to an operation interface of a providing server via a network, wherein the operation interface implements an operation interface definition stored in an operation interface definition data structure on an interface storage means and the interface definition data structure includes definitions of input and output business documents, and the definitions include respective descriptions of sets of storage units and logical structures for the sets of storage units, the method comprising:

marshalling data on the consuming server from a first internal data object into an input business document that conforms to the operation interface definition of the input business document;

sending the input business document from the consuming server to the providing server via the network;

receiving from the providing server at the consuming server an output business document that conforms to the operation interface definition of the output business document;

parsing at the consuming server the output business document according to the definition of the output business document to provide access to its content and logical structure and translating at least part of the parsed output business document into a second internal data object.

90-91. (Cancelled)

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The prior art of record does not specifically disclose or remotely suggest

With regard to independent claims 48, 59, and 70:

wherein said machine-readable specifications are adapted to be **parsed** and include data that

identifies an input document,

identifies one or more transactions that accept said input document, and

describes sets of storage units and logical structures for the sets of storage units in said input document.

With regard to independent claims 54 and 65:

wherein the storage units comprise **parsed** data, and the **parsed** data in at least one of the documents to be exchanged comprises:

character data encoding text characters in the one of the input and output documents, and

markup data identifying sets of storage units according to the logical structure of the one of the input and output documents.

With regard to independent claim 84:

wherein the operation interface implements an interface definition stored in an operation interface definition data structure on an interface storage means and the interface definition data structure includes **definitions of input and output business documents**, and **the definitions include respective descriptions of sets of storage units and logical structures for the sets of storage units**;

receiving at the providing server via the network an input business document from the consuming server;

parsing at the providing server the input business document according to the definition of the input business document **to provide access to its content and logical structure** and **translating** at least part of the parsed input business document into an internal input data object;

With regard to independent claim 89:

marshalling data on the consuming server from a first internal data object into an input business document that **conforms to the operation interface definition of the input business document**;

parsing at the consuming server the output business document according to the definition of the output business document **to provide access to its content and logical structure** and **translating** at least part of the parsed output business document into a second internal data object.

In addition, Examiner points to the arguments of Applicant's representative:

(Arguments/Remarks on 9/27/02; pp. 5 – 6);

(Arguments/Remarks on 12/09/03; pp. 7 – 11);

(Arguments/Remarks on 7/09/04; pp. 7 – 11);

(Arguments/Remarks on 3/08/05; pp. 7 – 13 (6/22/05; pp. 7 – 13));

(Arguments/Remarks on 3/29/06; pp. 8 – 14);

(Arguments/Remarks on 11/03/06; pp. 9 – 13);

(Arguments/Remarks on 7/9/07; pp. 9 – 19);

(Arguments/Remarks on 10/31/07; pp. 14 – 16);

(Arguments/Remarks on 10/28/08; pp. 14 – 25);

(132 Affidavits on 3/29/06 from Jay Tenenbaum and Stephen Carter);

(Affidavits submitted on 10/28/08).

2. These limitations, in conjunction with the other limitations in the independent claims, are not specifically disclosed or remotely suggested in the prior art of record.

Regarding double patenting concerns with regard to U.S. Pat. No. 6,542,912, although the combination of claims 1, 15, and 16 (and the combination of claims 23, 37, and 38) in '912 appear to mirror independent claims 54 and 65 of the present Application, the combination of claims 1, 15, and 16 (and the combination of claims 23, 37, and 38) in '912 do not include the "repository storing a library of logical structures" as taught in

Art Unit: 2454

claim 2 of '912 and claim 24 of '912. The "repository storing a library of logical structures" in claims 2 and 24 of '912 loosely mirrors the "registry of machine-readable specifications specifying business services offered by trading partners" disclosed in independent claims 54 and 65 of the present Application. However, claim 2 of '912 is not in the combination of claims 1, 15, and 16 of '912; and claim 24 of '912 is not in the combination of claims 23, 27, and 38 of '912.

A review of claims 48, 51 – 59, 62, 63, 65 – 70, 73, 74, and 84 – 89, in view of the Examiner's arguments above, indicates that claims 48, 51 – 59, 62, 63, 65 – 70, 73, 74, and 84 – 89 are allowable over the prior art of record.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth R. Coulter whose telephone number is 571 272-3879. The examiner can normally be reached on M - F, 7:30 am - 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2454

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth R Coulter/
Primary Examiner, Art Unit 2454

/KRC/